IN THE CLAIMS

1. (currently amended) A method of ultrasound inspection, said method comprising:

providing a composite first aircraft engine part;

introducing ultrasound to the first aircraft engine part;

receiving a first set of at least one reflection of the ultrasound introduced to the first aircraft engine part;

predicting a residual strength of the first aircraft engine part by using an amplitude of the received ~~reflection; and~~reflection with a plurality of results from a destructive and a non-destructive test performed on a plurality of second aircraft engine parts separate from the at least one first aircraft engine part, wherein said predicting a residual strength is performed by correlating a plurality of amplitudes of a second set of received reflections of ~~a plurality of~~the second aircraft engine parts with at least one non-ultrasound test of each of the second aircraft engine parts, wherein said correlating ~~a plurality~~the plurality of amplitudes comprises generating a linear least squares fit between the amplitudes and a plurality of results from the non-ultrasound tests.

2. (canceled)

3. (currently amended) A method according to ~~Claim 2~~Claim 1 wherein ~~predicting a residual strength~~said correlating the plurality of amplitudes comprises correlating the ~~amplitude~~amplitudes of the received ~~reflection~~reflections ~~of at least one second aircraft engine part~~within the second set with at least one destructive test of the second aircraft ~~engine part.~~engine parts.

4. (currently amended) A method according to Claim 3 wherein ~~predicting a residual strength~~said correlating the plurality of amplitudes comprises correlating the ~~amplitude~~amplitudes of the received ~~reflection~~reflections ~~of at least one second aircraft engine part~~within the second set with a core sample test of the second aircraft ~~engine part.~~engine parts.

5. (canceled)

6. (canceled)

7. (currently amended) A method according to Claim 1 wherein predicting a residual strength comprises predicting a residual shear strength of the first aircraft engine part using an amplitude of the <u>at least one</u> received ~~reflection.~~<u>reflection within the first set.</u>

8. (currently amended) A method according to ~~Claim 7~~<u>Claim 1</u> wherein ~~predicting a residual shear strength~~<u>said correlating the plurality of the amplitudes</u> comprises correlating a ~~plurality of~~<u>the</u> amplitudes of <u>the</u> received reflections ~~of a plurality of second aircraft engine parts~~<u>within the second set</u> with at least one non-ultrasound shear strength test of each of the ~~aircraft engine~~ second ~~parts.~~<u>aircraft engine parts.</u>

9. (currently amended) A method according to ~~Claim 8~~<u>Claim 1</u> wherein ~~correlating an amplitude~~<u>said generating the linear least squares fit</u> comprises generating a linear least squares fit between the amplitudes and a plurality of results from ~~the non-ultrasound~~<u>at least one non-ultrasound</u> shear strength ~~tests.~~<u>test.</u>

10. (currently amended) A ultrasound inspection system comprising:

a pulse echo transducer;

a processor operationally coupled to said transducer, said processor configured to predict a residual strength of a first aircraft engine part using an amplitude of a received ultrasound reflection; and

a memory containing a correlation of a plurality of amplitudes of received reflections of a plurality of second aircraft engine parts <u>separate from the first aircraft engine part</u> with <u>a</u> <u>plurality of results from</u> at least one non-ultrasound test of each of the second aircraft engine parts, said processor further configured to predict a residual strength of the first aircraft engine part <u>by</u> using an amplitude of a received ultrasound reflection and the correlation, said memory further contains a linear least squares fit between the amplitudes and ~~a plurality of~~<u>the</u> results from the <u>at least one</u> non-ultrasound ~~tests.~~<u>test.</u>

11. (canceled)

12. (currently amended) A system according to Claim 10 ~~further comprising a memory containing a correlation of an amplitude of at least one received reflection of at least one second aircraft engine part with at least one destructive test of the second aircraft engine part, said processor further configured to predict a residual strength of the first aircraft engine part using an amplitude of a received ultrasound reflection and the correlation.~~<u>wherein the at least one non-ultrasound test includes at least one destructive test.</u>

13. (currently amended) A system according to Claim 10 ~~further comprising a memory containing a correlation of an amplitude of at least one received reflection of at least one second aircraft engine part with a core sample test of the second aircraft engine part, said processor further configured to predict a residual strength of the first aircraft engine part using an amplitude of a received ultrasound reflection and the correlation.~~<u>wherein the at least one non-ultrasound test includes a core sample test.</u>

14. (canceled)

15. (canceled)

16. (currently amended) A system according to Claim 10 wherein ~~said processor further configured to predict~~<u>the residual strength includes</u> a residual shear strength of the first aircraft engine part.

17. (canceled)

18. (canceled)

19. (currently amended) An ultrasound inspection device comprising:

means for non-destructively testing a first aircraft engine part; and

means for predicting a residual strength of the first aircraft engine part <u>by</u> using a result from a non-destructive test of the first aircraft engine part with a plurality of <u>results from</u> destructive and non-destructive tests <u>performed</u> on second aircraft engine parts substantially similar to <u>and separate from</u> the first ~~part, and~~<u>part, wherein said means for</u>

predicting predicts the residual strength by correlating a plurality of amplitudes of received reflections ~~of a plurality of~~from the second aircraft engine parts with at least one non-ultrasound test of each of the second aircraft engine parts, and said means for predicting correlates the amplitudes by generating a linear least squares fit between the amplitudes and a plurality of results from the non-ultrasound tests.

20. (canceled)